



The Office of Kentucky Nature Preserves

The Kentucky Heritage Land Conservation Fund

2021 Annual Report

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Kentucky Heritage Land Conservation Fund



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The Kentucky Heritage Land Conservation Fund Board

Mr. Jason L. "Zeb" Weese, Chairman

Representing the Office of Kentucky Nature Preserves

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Lawrenceburg, KY

Representing environmental organizations

Mr. Carl Breeding, Treasurer

Lexington, KY

Representing citizens of the Commonwealth with experience in land acquisition

Mr. Ted Jessup

Greenville, KY

Representing agricultural interests

Dr. Paul Sheets

Paintsville, KY

Representing the League of Kentucky Sportsmen

Shannon Galbraith-Kent,

Representing the Kentucky Academy of Sciences

Gordon Slone

Representing the Kentucky Department of Natural Resources

Ron Vanover

Representing the Kentucky Department of Parks

Tony Wheatley

Representing the Kentucky Department of Fish and Wildlife Resources

This report is submitted to the Governor and the General Assembly as directed by KRS 146 and 418 KAR relating to the Office of Kentucky Nature Preserves, the Kentucky Heritage Land Conservation Fund.



Duties of the Office of Kentucky Nature Preserves



To secure for the people of present and future generations the benefits of an enduring resource of natural areas by establishing a system of nature preserves. KRS 146.440



To promote understanding and appreciation of the aesthetic, cultural, scientific and spiritual values of our unpolluted and unspoiled environment. KRS 146.410



To recognize endangered and threatened species of plants for human enjoyment, for scientific purposes, and to ensure their perpetuation as viable components of their ecosystems for the benefit of the people of Kentucky. KRS 146.600



To provide a central clearing house of information for environmental and conservation matters and maintain an inventory of natural types, flora, and fauna within the Commonwealth. KRS 146.485



To afford the citizens of the Commonwealth an opportunity to enjoy natural streams and to preserve for future generations the beauty of certain areas untrammelled by man through the Kentucky Wild Rivers Program. KRS 146.200-360



To benefit the citizens of Kentucky through the acquisition and maintenance of certain lands for use as state parks, recreation areas, state forests, nature preserves, wildlife management areas, and wetlands through administration of the Kentucky Heritage Land Conservation Fund . KRS 146.550-570

Executive Director's Message

Zeb Weese

We all know that 2021 has been as difficult as 2020 for many Kentuckians. You will see in these pages that the Office of Kentucky Nature Preserves and the Kentucky Heritage Land Conservation Fund have been hard at work to fulfill our mandates even while complying with necessary COVID protocols. OKNP staff have done a much better job than I could of describing our efforts this past year, so I want to selfishly reflect on a few items that have come to me as I head into retirement. By the time you read this, I will have retired from nearly 30 years in conservation with state and local government. It has been my privilege to work on projects protecting Kentucky's most endangered species and most significant natural areas, and have a lot of fun working with great people all along the way.



Raven Run Nature Sanctuary in Fayette County is where I started my career as a natural areas technician, right out of UK. It is there I led my first guided hikes, built my first hiking trails, and removed my first invasive species (I think I missed a few). Since then Raven Run has doubled in size thanks to the KHLCF and your Nature's Finest license plates, and I am very happy that I was able to conduct a prescribed fire there with OKNP last year on the site of a rare plant population. Raven Run is a great example of the importance local parks can play in conservation.

I also held temporary positions at Bernheim Forest in Bullitt County and UK's Robinson Forest in Breathitt County. Bernheim is of course one of the most important forest blocks in the state, providing habitat for many rare and declining species. Over the last few years the KHLCF has helped Bernheim add hundred of acres under conservation easements. We are also working with Bernheim, the Kentucky Natural Lands Trust, and the NRCS on a \$7 million RCPP grant to help conserve private land in the Bernheim area through conservation easements. In addition, OKNP is currently working with Bernheim on an innovative research project tagging neotropical migrant songbirds with tiny transmitters which enables biologists to track their movements in real time. This is one of my favorite projects because I get to do it myself—I've operated banding station on nature preserves since 2003, at Natural Bridge State Park, Rockcress Hills State Nature Preserves, and now at Bernheim.

My first state government job was with the Kentucky Department for Fish and Wildlife Resources (KDFWR). In recent years, OKNP and KDFWR have partnered together on several important endangered species projects, from prescribed fire to improve habitat on barrens and glades to updating the State Wildlife Action Plan to include endangered plants. This year, we have signed a data agreement which will allow both agencies to work together to provide the most complete data-set on rare and endangered species in the Commonwealth.

Next I moved on to Kentucky State Parks, as naturalist at Natural Bridge under the leadership of Dr. Wilson Francis and Carey Tichenor. After all these years, the Hood's Branch Trail and Sheltowee Trace through the park are still two of my favorite hikes in the state. OKNP's partnership with Kentucky State Parks has greatly expanded over the last several years. For instance, OKNP's trail specialist Doug Wilder now regularly conducts trainings for state park staff in trail maintenance and chain-saw safety. Also, in 2021 OKNP lead a team of agencies on the first prescribed fire on Perryville Bat-

tlefield State Historic Site, including staff from State Parks, KDFWR, and the Kentucky Division of Forestry (KDF).

I realized that working for Office of Kentucky Nature Preserves would give me opportunities to travel throughout the state and experience its biodiversity firsthand, so in 2006 I became a regional natural areas manager. I was privileged to coordinate management of significant populations of the federally endangered short's goldenrod and Braun's rockcress, for example. I also joined the first board of the Kentucky Prescribed Fire Council (KPFC), and got to help take the first steps in a unified prescribed fire program for the state. Just this year, an agreement was finally signed allowing state agencies to cooperate more on prescribed fire, an extremely important step in expanding the safe use of this important habitat tool.

Ten years ago I was extremely gratified to be named the first staff biologist for the Kentucky Heritage Land Conservation Fund Board, and soon thereafter became the KHLCF program manager. Not only did I get to conduct conservation easement inspections and assist with biological inventories and management on 77,000 acres of natural areas in 70 counties, I also got to help acquire and protect new natural areas. That has remained the most satisfying aspect of conservation to me, the permanent protection of natural areas. In the last 10 years, the KHLCF has grown from 77,000 acres preserved to nearly 97,000 acres. Given that several of those years were hampered by "sweeps" from the program funds into the state General Fund—a practice that Governor Beshear and the legislature stopped in 2020—that is a remarkable achievement.

Finally, five years ago I was given the opportunity to become the first Executive Director of the Office of Kentucky Nature Preserves, which was created by a merger of the Kentucky State Nature Preserves Commission, the Kentucky Wild Rivers Program, and the KHLCF. I was also appointed the chairman of the KHLCF, following in the footsteps of Dr. Bill Martin and Dr. Richie Kessler.

I am very proud of our record in these five years. For example, we've converted our cumbersome environmental review process to the efficient online Kentucky Biological Assessment Tool (KY-BAT). Our rare species data quantity and quality has increased dramatically, thanks to partnerships. Our data is also now used to run over 5,000 Farm Bill reports each year for Kentucky landowners through the NRCS Kentucky Interagency Coordinating Tool. Our prescribed fire program has gone from a handful of acres each year to almost 1,000 acres in 2021, thanks to expanded partnerships with KDF, KDFWR, and the KPFC. We've expanded our outreach program, and even won an EMMY for our PBS special "Kentucky, Naturally". A sequel focusing on KHLCF's historic sites will be out soon, and KHLCF was recognized by the American Battlefield Trust for our land conservation efforts.

Most significantly, OKNP has gone from a sixteen member staff in 2016 to 29 in 2021. We've been able to do that for two reasons—we have great partners who fund our projects because they know they will get excellent results, and we have an outstanding young staff who tirelessly works to deliver excellent results to our partners. While I am very proud of all we have accomplished, none of it would've been possible without the folks we have on staff, and our friends throughout the state that share our commitment to habitat conservation.

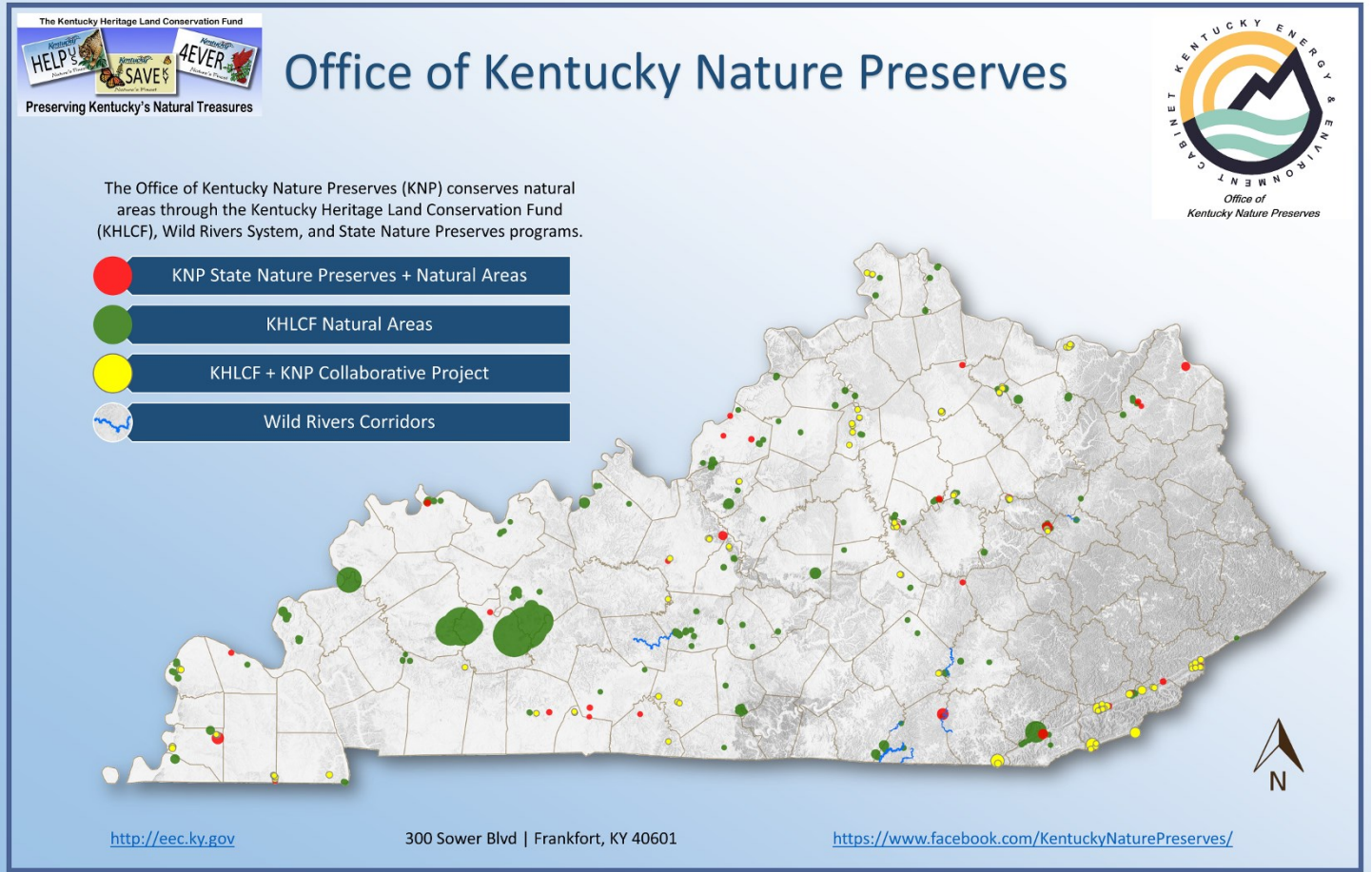
I am very proud to say that nearly all current OKNP staff achieved their current positions when I was Executive Director. You will find our staff listing at the end of this report, and each one of them is vital but Josh Lillpop, Tara Littlefield, and Stephanie Ellis were particularly instrumental in OKNP's development. I also want to thank a few partners who have greatly contributed to OKNP's recent suc-

cess: Lee Andrews and the USFWS Kentucky Field Office; Sunni Carr, Zack Couch, Chris Garland, Brian Clark, and many others at KDFWR; Ron Vanover and Robert Myers of Kentucky State Parks; Brandon Howard and staff of the KDF; Casey Shrader and others at NRCS; Scott Ray, David Taylor, and many others at the US Forest Service; Cheryl Beckley of WKU-PBS; Tom Fitzgerald of the Kentucky Resource Council; Lane Boldman of the Kentucky Conservation Committee; OKNP science advisors Dr. Albert Meier of WKU and Dr. Luke Dodd of ECU; and, of course, the many members of the KHLCP Board and folks in EEC administration, both past and present, who have supported our programs all along the way. Personally, I am particularly grateful for the continuing friendship of Bill Martin, Richie Kessler, and Wilson Francis, who all taught me the value of perseverance and a sense of humor.

While I am certainly going to miss the people and places of OKNP, I will remain involved with conservation through the Kentucky Natural Lands Trust, Bernheim Forest, Floracliff Nature Sanctuary, the Friends of Lower Howard's Creek, Elizabethtown Greenspace, and the many other nonprofit grass-roots efforts to conserve Kentucky's natural heritage. They could all use our help. I hope to see you all on the trail! - Zeb



Natural Areas Map



OKNP manages four distinct programs to conserve Kentucky's natural areas. While these programs all share common goals—rare species habitat, environmental education opportunities, and conserving natural areas through a combination of land acquisition, conservation easements, and public-private partnerships— they have some differences.

- **The Kentucky Heritage Land Conservation Fund**

Assists with funding conservation at the local and state level.

- **The State Nature Preserve System**

Prioritizes rare species habitat conservation and quiet enjoyment of natural areas.

- **The Natural Areas Registry**

Recognizes private landowners and others who own land with outstanding ecological attributes.

- **The Wild Rivers Program**

Focuses on riparian forest conservation and paddling opportunities on pristine rivers and streams.

As of July 1, 2021, Office of Kentucky Nature Preserves programs include:

- 19,865 acres owned by OKNP on 39 State Nature Preserves
- 8,090.91 acres owned by OKNP on 13 State Natural Areas
- 6,789 acres dedicated by OKNP on 17 State Nature Preserves owned by partnering agencies
- 17,183.50 acres in 72 conservation easements at KHLCF natural areas owned by local concerns
- 71,831 acres of deed restrictions on 38 KHLCF natural areas owned by other state agencies
- 9,017 acres owned by private landowners and other agencies on 76 Registered Natural Areas
- 26,961.26 acres owned by private landowners and other agencies on 9 Wild Rivers Corridors

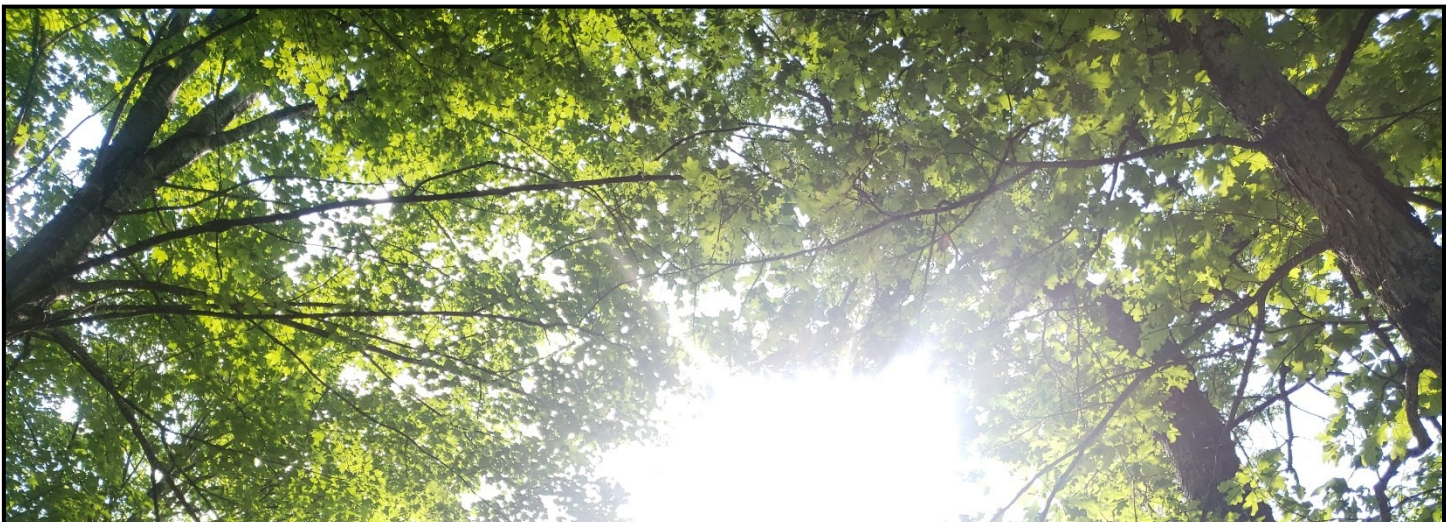
While the grand total of 156,398.56 acres in these programs is an impressive number, it is less than 0.6% of Kentucky's 25 million acres!

Kentucky Heritage Land Conservation Fund Historic Accomplishments

Since 1995, the Kentucky Heritage Land Conservation Fund (KHLCF) Board has played an integral part in protecting and conserving over 94,000 acres of Kentucky's natural areas and habitats on 172 tracts in 67 counties. KHLCF funds both the acquisition of property and management, including hiking trail development and habitat improvement.

Summary of the Kentucky Heritage Land Conservation Fund Efforts as of 1995 - June 2021			
Applicant	Number of Projects	Acreage Conserved	Funding
Fish and Wildlife Resources	8	40,701.18	\$ 7,915,255.59
Division of Forestry	6	3,662.77	\$ 6,213,849.35
Office of Kentucky Nature Preserves	47	11,028.59	\$ 9,352,271.42
Department of Parks	16	5,342.18	\$ 7,047,138.74
Wild Rivers Program	16	6,428.61	\$ 8,369,489.94
Multiple Agency Partners	6	14,781.09	\$ 11,673,455.86
County Governments	35	7,333.11	\$ 13,693,295.13
City Governments	10	542.55	\$ 1,709,119.25
Metro Governments	8	1013.24	\$ 3,288,294.45
Colleges/Universities	8	2,078.70	\$ 4,952,276.55
Conservation Districts	8	1,484.44	\$ 4,589,972.66
Non-Profit	4	764.477	\$ 1,557,385.50
Totals:	171	95,160.94	\$ 80,361,804.44

Note: Includes both acquisition and management costs.



Projects/Acquisitions

One Kentucky Heritage Land Conservation Fund property was successfully acquired in FY2021.

FY 2021 KHLCF ACQUISITIONS			
PROJECT	AGENCY	COUNTY	ACRES
Archer Benge—Cumberlands Tract	KNP	Whitley	368.02
Total:			368.02

Funding awarded was for land purchase, associated pre-acquisition costs (appraisals, title, and survey work), or approved management activities. Due to complexities of the land acquisition process it often takes several years for the KHLCF to successfully complete projects. In some cases, projects are withdrawn by the seller and not completed. This fiscal year no projects were awarded.

Since 1995 to 2021 The Kentucky Heritage Land Program has protection on:

- 72 Competitive sites totaling 17,183.497 acres.
- 69 Non-competitive sites totaling 90,192.679.



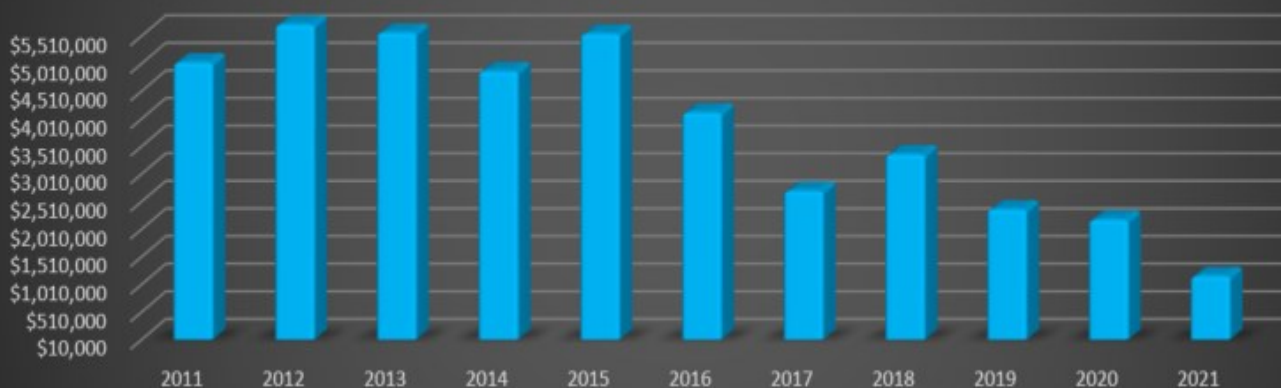
Annual Revenue

Funding for the KHLCF is generated from the sale of nature license plates, the state portion of unmined mineral tax on coal, environmental fines, interest income, and donations. By statute, the Kentucky Environmental Education Council receives the first \$150,000 collected from environmental fines and the Office of Energy Policy receives the first \$400,000 of unmined minerals taxes. However, in FY2021 the unmined mineral tax only generated \$281,899.37 all of which was transferred to the Office of Energy Policy.

License plate revenue is in a separate account and to date has not been swept into the general fund. The 1-year FY21 budget developed by Governor Beshear and passed by the General Assembly in spring 2020 included no sweeps from the KHLCF for the first time since 2014.

FY	License Plates	Fines	Un-Mined Tax	Interest	Other	KEEC/OEP deductions	TOTALS
2011	\$638,470	\$1,918,713	\$2,399,253	\$74,111		(\$550,000)	\$4,480,547
2012	\$571,970	\$2,199,708	\$2,870,186	\$74,111		(\$550,000)	\$5,165,974
2013	\$431,100	\$2,332,183	\$2,820,758	(\$14,433)		(\$550,000)	\$5,019,608
2014	\$412,370	\$1,709,373	\$2,676,912	\$71,526	\$71	(\$550,000)	\$4,320,251
2015	\$402,118	\$2,773,396	\$2,287,058	\$85,541	\$945	(\$550,000)	\$4,999,058
2016	\$288,182	\$2,070,527	\$1,637,571	\$126,302		(\$550,000)	\$3,572,581
2017	\$379,370	\$1,586,457	\$676,305	\$59,298	\$25	(\$550,000)	\$2,151,454
2018	\$365,590	\$2,262,555	\$636,307	\$100,261	\$385	(\$550,000)	\$2,815,097
2019	\$361,050	\$1,492,233	\$333,392	\$182,467		(\$483,392)	\$1,885,750
2020	\$361,460	\$1,909,592	\$166,097	\$60,986		(\$166,097)	\$2,182,037
2021	\$349,170	\$961,284	\$281,899	\$(52)		(\$-281,899)	\$1,160,402

10 Year Totals



KHLCF Purchased Properties 1995-2021

County	Project	Acres	Agency
Allen	Carpenter Cave Conservation Area	216.34	Private Individual
Ballard	Axe Lake Swamp State Nature Preserve	458.45	OKNP
Ballard	Boatwright Wildlife Management Area	8862.84	KDFWR& U.S. Army Corps of Engineers
Barren	Brigadoon State Nature Preserve	187.46	OKNP
Barren	Mutter's Cave State Natural Area	108.28	OKNP
Bath, Fleming, Nicholas	Clay Wildlife Management Area	8953.06	Kentucky Department of Fish and Wildlife Resources (KDFWR)
Bell	Kentucky Ridge Forest Wildlife Management Area	3504.51	KDFWR &KDF
Bell	Kentucky Ridge State Forest	11794.25	Kentucky Division of Forestry (KDF)
Bell, Harlan, Letcher	Pine Mountain State Scenic Trail	3276.03	Kentucky State Parks
Boone	Big Bone Lick State Historic Site	734.19	Kentucky State Parks
Boone	Boone County Cliffs State Nature Preserve	75.42	Boone County Fiscal Court
Boone	Dinsmore Woods State Nature Preserve	104.52	Boone County Fiscal Court
Boone	Gunpowder Creek Nature Park	247.96	Boone County Fiscal Court
Boyle	Perryville Battlefield State Historic Site	1184.39	Kentucky State Parks & OKNP
Breckinridge	Breckinridge County Wildlife Education Area	25.19	Breckinridge County Fiscal Court
Breckinridge	Yellowbank Wildlife Management Area	6760.5	Breckinridge County Fiscal Court & Kentucky Department of Fish and Wildlife Resources
Bullitt	Apple Valley Glades State Nature Preserve	60.36	OKNP
Bullitt	Knobs State Forest and Wildlife Management Area	2035.92	KDFWR&KDF
Bullitt, Jefferson	Jefferson Memorial Forest	6676.57	Louisville Metro Government
Bullitt, Jefferson, Oldham	The Parklands of Floyds Fork	5509.36	The Future Fund Land Trust & Louisville Metro Government & 21st Century Parks
Bullitt, Nelson	Bernheim Arboretum and Research Forest	16161.17	Bernheim Arboretum and Research Forest
Caldwell, Christian, Hopkins	Pennyrile State Forest	14580.53	Kentucky Division of Forestry
Calloway	Blood River Seeps State Nature Preserve	192.49	OKNP
Calloway	Fort Donelson National Battlefield (Fort Heiman Unit)	446.72	U.S. National Park Service
Campbell	Hawthorne Crossing Conservation Area	137.88	Campbell County Conservation District
Campbell	St. Anne Woods and Wetlands Research and Education Center	146.49	Campbell County Conservation District
Campbell, Kenton	Morning View Natural Area	223.05	Kenton County Conservation District
Carlisle, Fulton, Hickman	Obion Creek Wildlife Management Area	4257.73	Kentucky Department of Fish and Wildlife Resources
Carter	Carter Caves State Resort Park	1819.99	Kentucky State Parks
Carter	Olive Hill Lake Conservation	299.16	City of Olive Hill
Carter	Tygarts State Forest	938.5	Kentucky Division of Forestry
Christian	Bob Overton Conservation Area	54.82	Private Individual
Clark	Civil War Fort at Boonesboro	25.38	Clark County Fiscal Court
Clark	Lower Howards Creek Heritage Park	168.66	Clark County Fiscal Court
Clark	Lower Howards Creek State Nature Preserve	227.99	Clark County Fiscal Court
Crittenden, Union	Big Rivers Wildlife Management Area and State Forest	7573.66	KDFWR & KDF
Cumberland, Metcalfe	Marrowbone State Forest and Wildlife Management Area	1955.21	KDFWR&KDF

County	Project	Acres	Agency
Daviess	Adkisson Greenbelt Park	22.41	City of Owensboro
Daviess	Yellow Creek Park	155.16	Daviess County Fiscal Court
Estill	Lily Mountain Nature Preserve	349.45	Estill County Conservation District
Fayette, Madison	Floracliff Nature Sanctuary	348.63	Floracliff Nature Sanctuary
Fayette, Madison	Raven Run Nature Sanctuary	749.07	Lexington-Fayette Urban County Government Parks and Recreation
Fleming	Park Lake Mountain Nature Preserve	821.11	Fleming County Fiscal Court
Fleming, Nicholas, Robertson	Blue Licks Battlefield State Resort Park	1071.92	Kentucky State Parks
Fleming, Robertson	Shorts Goldenrod State Nature Preserve	209.87	OKNP
Franklin	Cove Spring Park	210.93	City of Frankfort
Franklin	Feindel Conservation Area	14.72	Private Individual
Franklin	Julian Savanna State Nature Preserve	42.43	Private Individual
Franklin	River Cliffs State Nature Preserve	210.2	Private Individual & OKNP
Franklin	Rockcress Hills State Nature Preserve	84.16	OKNP
Franklin	Swallowfield Conservation Area	72.2	Private Individual
Garrard, Jessamine	Tom Dorman State Nature Preserve	911.45	OKNP
Garrard, Lincoln	Logan Hubble Park	122.94	Lincoln County Fiscal Court
Graves	Terrapin Creek State Nature Preserve	269.21	OKNP
Grayson	Lone Oak Barrens State Nature Preserve	33.53	OKNP
Green	Glenview Heritage Land	168.09	Green County Fiscal Court
Green	Wyatt Jefferies Woods Park	57.14	Green County Fiscal Court
Hancock	Jeffrey's Cliff	232.78	Hancock County Fiscal Court
Hardin	Eastview Barrens State Nature Preserve	119.21	The Nature Conservancy & OKNP
Hardin	Jim Scudder State Nature Preserve	231.13	OKNP & Hardin County Fiscal Court
Hardin	Springhouse Barrens State Nature Preserve	54.08	Private Individual
Harlan	Blanton Forest State Nature Preserve	3503.78	OKNP
Harlan	James E. Bickford State Nature Preserve	347.8	Pine Mountain Settlement School
Harlan	Kentonia State Forest	4082.69	Kentucky Division of Forestry
Harlan	Martin's Fork State Natural Area	1600.64	OKNP
Harlan	Stone Mountain Wildlife Management Area and State Natural Area	1017.45	KDFWR & OKNP
Harlan, Letcher	Hi Lewis Pine Barrens State Nature Preserve	426.17	OKNP
Harrison	Griffith Woods Wildlife Management Area	745.53	Kentucky Department of Fish and Wildlife Resources
Hart	Frenchman's Knob Preserve	65.87	Hart County Fiscal Court
Hart	Green River State Natural Area (Boiling Springs)	121.37	OKNP
Hart	Green River State Natural Area (Davis Bend)	165.52	OKNP
Hart	Green River State Natural Area (Rush Island Bottoms)	139.25	OKNP
Hart	Hidden River Cave	10.14	City of Horse Cave
Hart	Upper Green River Biological Preserve	1247.58	Western Kentucky University & OKNP
Hart	Upper Green River Biological Preserve (Lawler Bend)	371.56	Western Kentucky University
Henderson	Green River State Forest	1091.81	KDF
Henderson	John James Audubon State Park	1294.6	Kentucky State Parks

County	Project	Acres	Agency
Henderson	John James Audubon State Park State Nature Preserve	338.31	Kentucky State Parks
Henry	Drennon Creek State Nature Preserve	328.96	OKNP
Henry	Kentucky State University Environmental Education Center	294.68	Kentucky State University
Henry, Owen	Kentucky River Wildlife Management Area	3555.29	Kentucky Department of Fish and Wildlife Resources
Hickman	Obion Creek State Nature Preserve	1598.96	OKNP & Murray State University
Hickman	Three Ponds State Nature Preserve	528.25	OKNP
Hopkins, Muhlenberg, Ohio	Peabody Wildlife Management Area	45679.07	KDFWR & Western Land Services & Patriot Coal Corporation
Jefferson	McNeely Lake Park	742.08	City of Louisville
Jefferson	Putney Pond and Woodlands	24.36	City of Prospect
Jefferson	Rolleigh Peterson Educational Forest	112.67	Louisville Metro Government & KDF
Jessamine	Camp Nelson National Monument	385.53	U.S. National Park Service
Jessamine	Jessamine Creek Gorge Nature Preserve	267.49	Jessamine County Fiscal Court
Larue	Abraham Lincoln Birthplace National Historic Park - Boyhood Home Unit	227.98	U.S. National Park Service
Larue	Larue County Environmental Center	215.9	Larue County Fiscal Court
Larue	Thompson Creek Glades State Nature Preserve	169.08	OKNP
Laurel	Sinking Creek State Natural Area	301	OKNP
Laurel	Whitley Branch Wetland Restoration Project	75.57	City of London
Letcher	Bad Branch State Nature Preserve	2829.97	The Nature Conservancy & OKNP
Letcher	Lilley Cornett Woods	543.03	Eastern Kentucky University
Lewis	Crooked Creek State Nature Preserve	728.53	OKNP
Lincoln	Bouteloua Barrens State Nature Preserve	260.16	OKNP
Lincoln	William Whitley House State Historic Site	89.49	Kentucky State Parks
Livingston	Livingston County Wildlife Management Area (Reynolds Tract)	873.13	Livingston County Fiscal Court
Livingston	Livingston County Wildlife Management Area and State Nature Preserve (Bissell Bluff SNP)	563.24	Livingston County Fiscal Court
Livingston	Livingston County Wildlife Management Area and State Nature Preserve (Newman's Bluff SNP)	993.81	Livingston County Fiscal Court
Logan	Baker Natural Area	66.16	Logan County Conservation District
Logan	Logan County Glade State Nature Preserve	41.61	Logan County
Marion	Marion County Wildlife Management Area and State Forest	1340.67	KDFWR & KDF & Marion County Fiscal Court
McCracken	Perkins Creek Nature Preserve	80.56	City of Paducah
McCreary	Little South Fork State Natural Area (Tucker SNA)	23.05	OKNP
McCreary	Rock Creek State Natural Area	89.92	OKNP
McCreary, Wayne	Little South Fork State Natural Area (Burnett Branch SNA)	1060.23	OKNP
McCreary, Wayne	Little South Fork State Natural Area (Steele Hollow SNA)	2231.36	OKNP
McCreary, Whitley	Cumberland Falls State Resort Park	1974.24	Kentucky State Parks & OKNP

County	Project	Acres	Agency
Menifee	Broke Leg Falls	15.85	Menifee County Fiscal Court
Metcalfe	Dry Fork Gorge	79.97	Metcalfe County Fiscal Court
Monroe	Old Mulkey Meetinghouse State Historic Site	72.33	Kentucky State Parks
Nelson	Town Creek Greenway	13.22	Kentucky State Parks & City of Bardstown
Nicholas, Robertson	Blue Licks State Park State Nature Preserve	54.1	Kentucky State Parks & OKNP
Ohio	Highview Hill	1012.58	Ohio County Fiscal Court
Ohio	Ohio County Park Nature Area	115.45	Ohio County Fiscal Court
Oldham	Morgan Conservation Park	227.59	Oldham County Fiscal Court
Powell	Natural Bridge State Park State Nature Preserve	1238.04	Kentucky State Parks
Powell	Pilot Knob State Nature Preserve	742.11	OKNP & Powell County Fiscal Court
Powell	Powell County Conservation Tracts	82.83	Powell County Fiscal Court
Powell, Wolfe	Natural Bridge State Resort Park	2492.18	Kentucky State Parks
Powell, Wolfe	Red River State Natural Area	773.64	OKNP
Pulaski	Buck Creek Nature Preserve	35.2	Pulaski County Fiscal Court
Pulaski	Dr. William H. Martin State Natural Area	459.2	OKNP
Pulaski	Frances Johnson Palk State Nature Preserve	250.13	OKNP
Pulaski	Hazeldell Meadow Preserve	44.03	Pulaski County Fiscal Court
Shelby	Clear Creek Park	190.46	Shelby County Fiscal Court
Shelby	Shelby Trails Park	75.79	Shelby County Fiscal Court
Simpson	Flat Rock Glade State Nature Preserve	98.58	OKNP
Taylor	Clay Hill Memorial Forest	335.58	Campbellsville University
Taylor	Tebbs Bend Nature and Recreation Area	253.88	Taylor County Fiscal Court
Warren	Crumps Cave Research and Education Preserve	2.01	Western Kentucky University
Warren	Lost River Cave Valley	70.38	Warren County Fiscal Court
Whitley	Archer-Benge State Nature Preserve	2229.69	OKNP



Innovative Workflows

During the last year, the Office of Kentucky Nature Preserves' GIS Specialists collaborated with the KHLCF coordinator to streamline the annual KHLCF inspection process. Management contacts were compiled and are now easily accessible in a digital map available in the field. The same map outlines all boundaries of KHLCF sites. Furthermore, a Survey123 digital data collection form was created to collect KHLCF Inspection data in the field. The data collected then populates a dashboard that allows the inspector to keep track of follow-ups and locations remaining to be surveyed. Prior to this workflow technology, OKNP staff collected records of all 130+ site inspections by hand on paper. This streamlined way of completing inspections and tracking KHLCF sites will be extremely efficient for our work moving forward.

KHLCF Inspection Dashboard

The KHLCF Inspection Dashboard can be used by conservation staff to monitor the results and progress of the KHLCF site inspections.

Adjust the filters or current map extent to refine the results. Current year surveys are displayed by default

HLCF Type Selection

Follow Up Required Selector

All

Inspector

All

Inspection Year

All

Inspection Date

HLCF

136

Summary List

Follow-up

5

Last update: a few seconds ago

Summary List

Follow-up

0

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Summary List

No follow-up

15

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Summary List

HLCF Managed Areas

- Abraham Lincoln Birthplace National Historic Park - Boyhood Home Unit
- Adkisson Greenbelt Park
- Apple Valley Glades State Nature Preserve
- Archer-Benge State Nature Preserve
- Axe Lake Swamp State Nature Preserve
- Bad Branch State Nature Preserve
- Baker Natural Area
- Bernheim Arboretum and Research Forest
- Big Bone Lick State Historic Site
- Big Rivers Wildlife Management Area and State Forest
- Blanton Forest State Nature Preserve
- Blood River Seeps State Nature Preserve

ArcGIS Survey123

KHLCF Site Inspections

Site Information

Site Name

Tract Name

Only if performing a survey per tract

KNP Inspector

Others present during inspection

e.g. Salam, Mason, etc


Inspection Date


Wednesday, September 29, 2021

1 of 4

Conservation Easement Highlights

When KHLCF funding conserves a natural area at a county park, land trust site, or university research station, a permanent conservation easement is placed on that property. This ensures that the site will always be managed for conservation and nature-based recreation. OKNP staff inspects each of these conservation easements annually and our partners submit reports on their activities. Here are just a few highlights from some of our 54 conservation easement partners:

- Hidden River Cave** is owned/managed by The American Cave Conservation Association and the City of Horse Cave. Their efforts have turned this once “most polluted cave in North America” into a thriving biological and economical resource for the community through years of pollution mitigation and watershed education. This is significant because the water from the cave system enters the Green River which is one of the most important freshwater streams left in North America and supports more than 70 mussel species of which 17 are rare and one is the only Kentucky endemic, 150 species of fish of which 13 are rare including 7 endemics, the federally endangered KY cave shrimp, the endemic bottlebrush crayfish, and numerous other rare organisms. The successes of Hidden River Cave and KHLCF will be featured in an upcoming article produced by Land Air and Water Webzine.
 

Hidden River Cave. PC: City of HC Tourism
- Morning View Heritage Land.** The Kenton County Conservation District manages this site for restoration of native habitats and as a demonstration for good management practices. This site is a mixture of approximately 60% upland, calcareous forest dominated by various oaks, hickories, American beech, sugar maple, and ironwood with some red cedar thickets and woodlands at the periphery of the more mesic forests. Population of the federally endangered plant Short's goldenrod have been restored to the site, as well as habitat for federally endangered bats, in partnership with the US Fish and Wildlife Service hosts field days on the site.
 

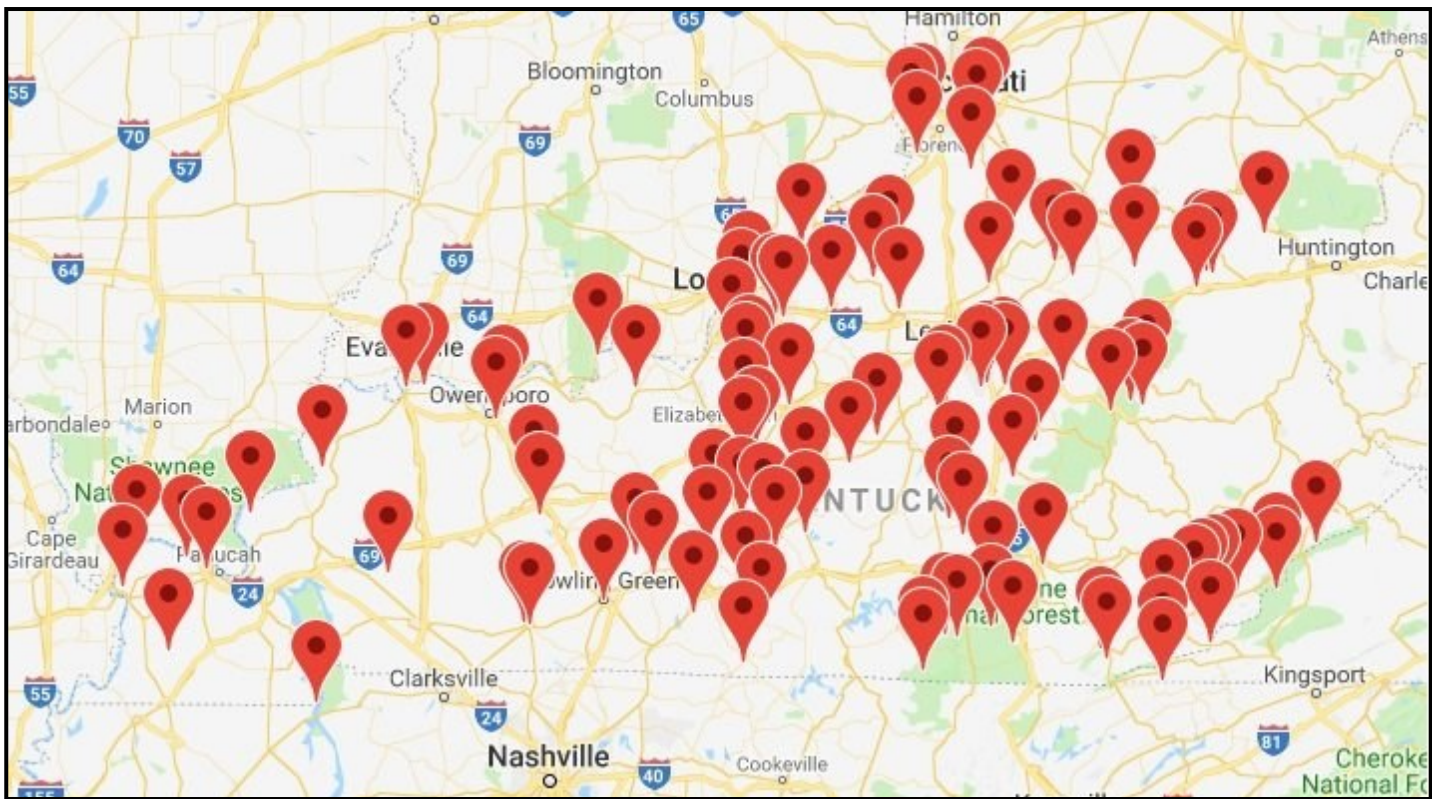
Morning View Heritage Land

Hiking Opportunities

In addition to conserving habitat for rare species, OKNP strives to provide passive outdoor recreation opportunities to the citizens of Kentucky and tourists alike. OKNP nature preserves, KHLCF sites, and natural areas provide an opportunity for individuals, families, and groups to see, hear, explore, and connect with nature in its purest state possible and to experience what Kentucky may have looked like centuries ago. For the hiker, nature photographer, bird watcher, and those seeking solitude in pockets of wild Kentucky, State Nature Preserves, Wild Rivers, and Heritage Lands truly are some of the most cherished places in the state.

The [Keith MacAdam Trail Endowment for Kentucky Nature Preserves](#) was established in 2018 to assist with improvements on the OKNP trail system. Through the financial support the endowment offers, and an increased focus on organizing volunteers, we have been able to make short and long term plans to maintain and improve the existing trail systems as well as develop new trails.

OKNP has been able to make several notable improvements for hikers over the last few years. One of the most notable changes is our website, which includes an online tool making it easier to find information on our public sites. Our trails manager makes regular visits to each site we manage and has made numerous updates to bridges, boardwalks, and steps that assist visitors in traversing our trails. We have updated signage and are now using a new trail blaze to help guide visitors on their trek.



Find your new favorite hiking spot now at

<https://eec.ky.gov/Nature-Preserves/Locations/>

Hiking Improvements



Boardwalks were installed at KHLCF Nature Preserve sites: Pilot Knob, Jesse Stuart, and Blue Licks State Park Nature Preserve. These boardwalks allow visitors to keep their feet dry in areas that hold more water while preventing erosion and damage to important plants.



Fencing installed at KHLCF Partners site Cumberland Falls as part of a trail building training for KNP and State Park Staff.



New and updated bridges were installed at KHLCF Nature Preserves Pilot Knob and Vernon Douglas improve visitors access under wet or high water conditions.

OKNP Prescribed Fire Program

The suppression of natural fire events and the introduction of invasive species have put many native fire-dependent species at risk of disappearing. Office of Kentucky Nature Preserves has a long history of using fire to control invasive species, manage successional stages of vegetation, improve soil chemistry, and promote fire-dependent plant communities. The application of this tool must be done in an appropriate method to facilitate the desired outcomes while also accounting for public safety, budgetary constraints, and management goals. We now have an additional two certified burn bosses on staff bringing our total to four and an additional 3 apprentice burn bosses currently working on their qualifications. In 2021, KNP completed burns on 931 acres, easily the most successful season we have had on record. Twenty prescribed burns were implemented on 15 heritage land sites including state nature preserves, wildlife management areas, state parks, and competitive sites totaling 794 acres. Implementation of a joint Memorandum of Understanding between the Kentucky Division of Forestry, Kentucky Department of Fish and Wildlife Resources, and the OKNP is already paying dividends for the KHLCF partner's ability to assist and receive assistance in implementation of prescribed fire on lands purchased and protected by the program.

Site	County	#Units	Acres Burned	KHLCF project
Hazeldell	Pulaski	1	4	yes
Hi Lewis SNP	Harlan	1	12.7	yes
Shorts Goldenrod SNP	Robertson	1	32	yes
Jim Scudder SNP	Hardin	1	6.4	yes
Eastview Barrens SNP	Hardin	1	8	yes
Mt Victory SNP	Pulaski	1	203	yes
Crooked Creek SNP	Lewis	1	28	yes
Raymond Athey SNP	Logan	1	13	yes
Perryville SPS	Boyle	1	85	yes
Griffith Woods WMA	Harrison	3	168	yes
Blue Licks- Smoot Tract	Nicholas	1	6.4	yes
Kingsolver Tract	Robertson	1	3.7	yes
Abbey of Gethsemani RNA	Nelson	1	110	yes
Floracliff Nature Sanctuary	Fayette	2	5	yes
Steele Hollow SNA	Wayne/McCreary	3	109	yes
Shaker Village	Mercer	5	137	no
TOTAL		25	931.2	



Prescribed burn conducted at Perryville Battlefield State Park. PC: Kentucky Department of Parks

Outreach and Education on Heritage Land Conservation Sites

Community Science: OKNP uses iNaturalist to gather information about flora and fauna in our state. iNaturalist is popular nature app that hosts a social network of naturalists, community scientists, biologists and people just interested in learning more about nature! Observations are submitted by taking photos on your phone that are uploaded to a global database that helps scientists study biodiversity across the world! Several HLCF sites are used to connect the community with nature

Moth Week At Perryville Battlefield State Historic Site (KHLCF site), OKNP held a moth sampling night event for the public as a part of Moth Week, a community science event on iNaturalist. In total, Moth Week yielded 1644 observations across the state from our participants. Participants were encouraged to take photos



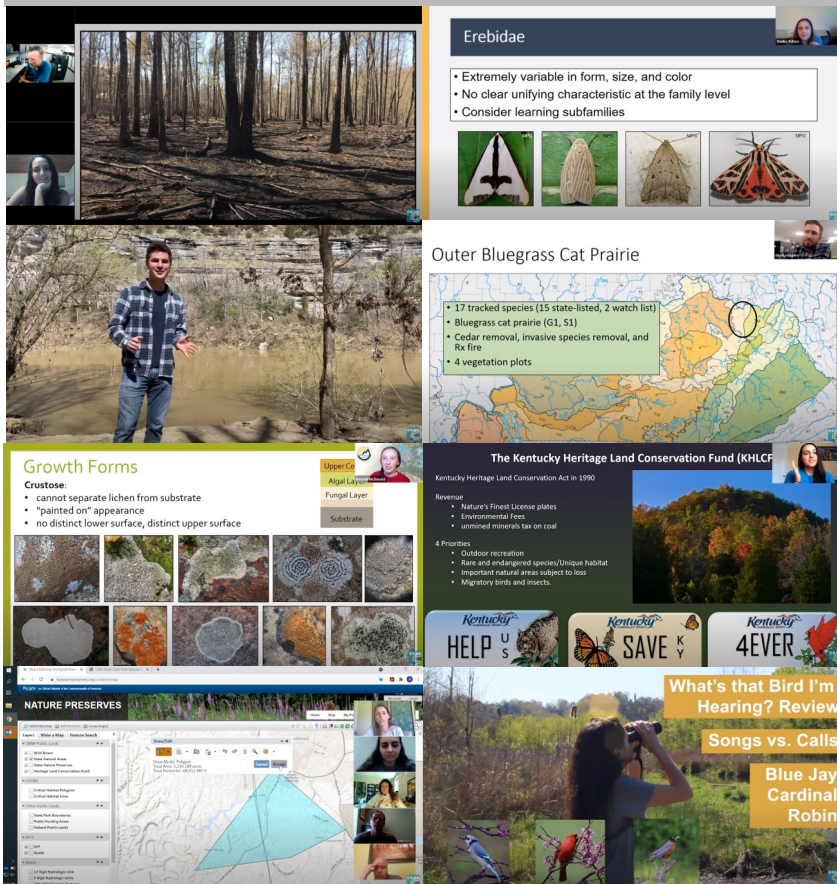
Raspberry Pyrausta Moth (*Pyrausta signatalis*)

and submit observations of moths in the evenings around their home or yards. Some people even chose to survey for moths by hanging a sheet in their yard with a light pointed at it. This attracted moths to one central location and makes it easier to observe/take pictures of them. A total of 374 different species were documented during this week-long event!

Wildflower Week Botany Blitz Due to the inability to gather in person for Wildflower Weekend, OKNP and the Kentucky Native Plant Society hosted a virtual Wildflower Week that included a week long Botany Blitz on iNaturalist. Over 10 KHLCF sites were included in the botany blitz on iNaturalist. In all, the botanical community of 110 observers made 3,193 observations of 460 species of wildflowers, blooming woody plants, graminoids, and mosses. A variety of virtual hikes that highlighted several KHLCF sites across the state was also a part of Wildflower week. KHLCF sites included Lily Mountain Natural Area, Cove Spring Park, Audubon State Park, Rockcress Hills State Nature Preserve, and Jeffrey's Cliff Natural Area.



Outreach and Education



Staying Connected

From 2020-2021 OKNP has added 36 educational videos and recorded presentations to our growing educational library on YouTube. From 2020 to current date, OKNP has hosted or been involved in nearly 50 outreach and educational events. We have reached around 3,805 people who have participated in our programs as well as started a brand new quarterly newsletter to inform our audience of opportunities and important happenings at OKNP. Follow our social media accounts to learn more about day-to-day OKNP work, events, volunteer opportunities and more.



Kentucky Landsnail Community Science Project

The Terrestrial Mollusk Biodiversity Inventory Project, funded by OKNP and Kentucky Heritage Land Conservation Fund (KHLCF) recently concluded its 18-month statewide survey. This project sought to conduct a comprehensive land snail survey to determine the status of these critical organisms across the state and the role they play in healthy functioning ecosystems. An integral component of the project was the unprecedented Citizen Science Initiative with 110 volunteers from a wide variety of state and federal agencies, museums, universities, nature preserves, state parks, private biological consulting firms, and volunteers from across the state. This cadre of individuals collectively assisted the project managers, Dan and Judy Dourson, of Dourson Biological Consulting in sampling all 120 counties in Kentucky documenting a staggering:

- 1,730 new county records,
- 13 new state records,
- 12 species potentially new to science (under review) and,
- a whopping 29,036 individual specimens collected and identified!

This project focused on collecting old shells on hiking trails for identification, live snails were not collected.



Rare Plant and Natural Community Records and New Finds on KHLCHF Sites

Kentucky Heritage Land Conservation Sites contain some of the best examples of natural plant communities and rare plant populations in the state. OKNP botanists and ecologists focus on updating records and surveying for new populations of rare plants and natural communities on Heritage Land Conservation sites as well as conduct surveys on newly purchased KHLCHF sites. A total of 610 records of rare vascular plants, 22 mosses, 1 liverwort, and 65 high quality examples of natural communities have been documented on KHLCHF sites. In just the past year, our botanists and ecologists have recorded 71 new populations of rare plants and 2 high quality natural communities on KHLCHF owned or managed properties. These records illustrate the richness and diversity of KHLCHF properties and the important investments in this program.

Classification	# records added last year on KHLCHF sites	Total # records known to date on KHLCHF sites
Liverworts	0	1
Mosses	0	22
Vascular Plants	71	610
Plant Communities	2	65



A new population and county record of the state endangered snow trilliums (*Trillium nivale*) was discovered at an KHLCHF site in Boone County!



A new population and county record of the recently federally delisted running buffalo clover (*Trifolium stoloniferum*) was discovered on an KHLCHF site in Robertson county!



A new population and county record of the state endangered bog twayblade (*Liparis loeselii*) was discovered in an KHLCHF site in Lewis County!

Zoological Finds

Over the previous year our zoologists recorded the following on KHLCF owned or managed properties. These records illustrate the richness and diversity of KHLCF properties and the important investments in this program.

Classification	# records added in FY21	Total # records known to date
Snails	2	8
Insects	5	78
Arachnids	0	2
Other Invertebrates	0	3
Freshwater Mussels	6	190
Crustaceans	0	32
Fishes	0	169
Amphibians	0	26
Reptiles	0	35
Breeding Birds	27	174
Mammals	6	143



Rafinesque's big-eared bat



Common Raven. PC: USFWS

Conservation Across Borders

Big news for Kentucky! A female Monarch butterfly that was tagged at KHLCF site, Perryville Battlefield State Historic Site, was recovered 1,600 miles months later in Mexico! This is the first tag from Kentucky out of thousands deployed over the years, that was successfully recovered in Mexico. The 4th seasonal generation of Monarchs are biologically unique in that they live almost three times as long. During this time, up to 100 million Monarchs (east of the



OKNP Staff with a caught Monarch

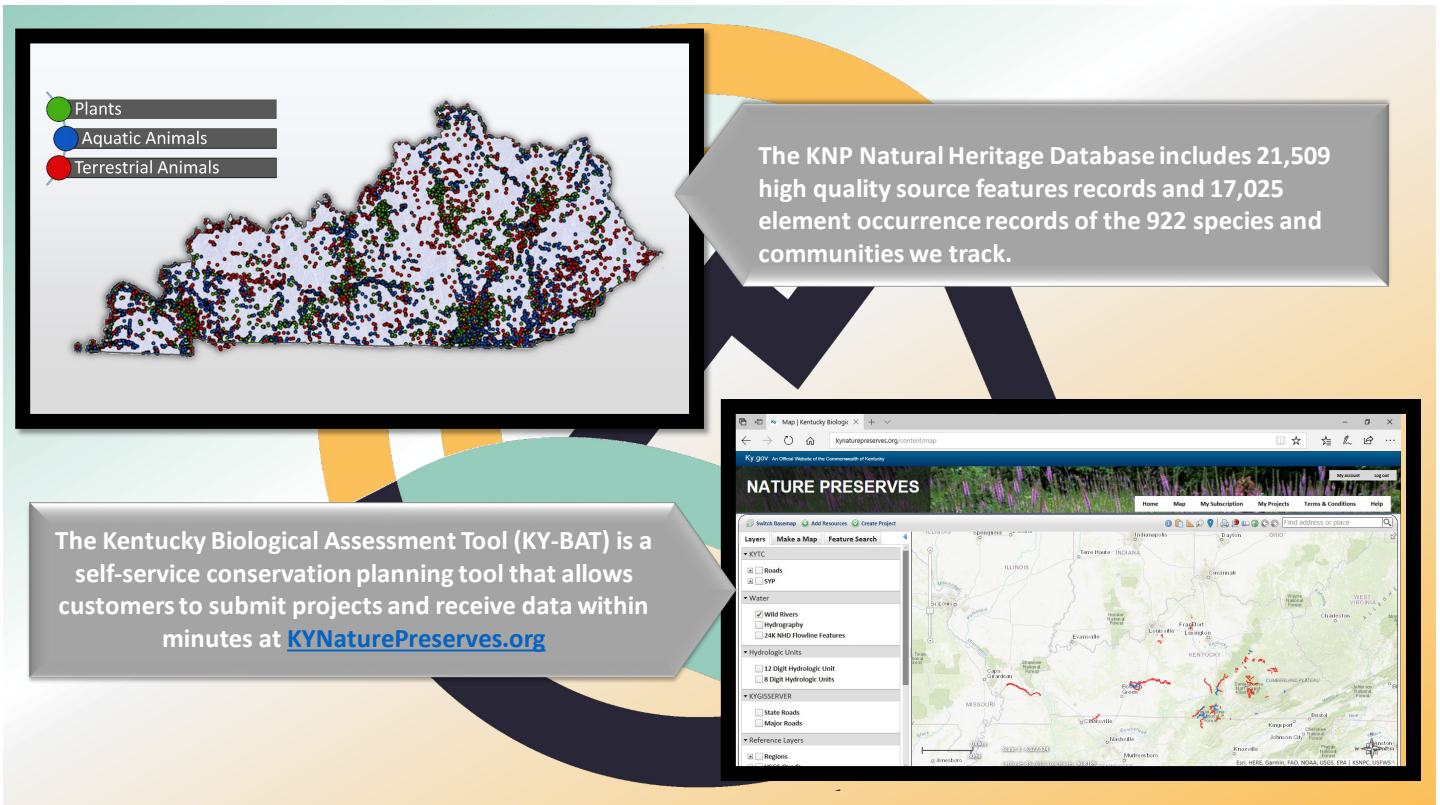
Rocky Mountains) migrate to their overwintering grounds in the Trans-volcanic Mountains of Mexico flying at heights up to 11,000 feet! They will make the journey again to return North next spring. Biologists and community scientists capture, tag, and release Monarchs during their journey while tracking the date, sex, and location for each Monarch. Tags that are recovered help scientists learn more about specific migration patterns to better guide efforts in the conservation of this species. OKNP works with Kentucky Department of Parks to manage over 750 acres of pollinator friendly habitat at this site.



KDFWR KY Wild Member, Tri Roberts, who tagged the female Monarch. PC: KDFWR

The KNP Biological Assessment Database

The Kentucky Biological Assessment Tool, accessible at <https://kynaturepreserves.org/>, allows customers to have real-time access to OKNP data, and was made available to the public in 2018 as a part of our commitment to providing timely, creative, high-quality solutions to a wide variety of environmental and developmental planning needs. Our dataset allows us to inform the public on important ecological resources present near KHLCP properties, therefore playing a role in preventing impact to those properties.



The Kentucky Biological Assessment Tool (KY-BAT), an environmental review tool developed by OKNP in cooperation with NatureServe, went live in 2018. KY-BAT allows clients to submit projects and receive reports with information on rare species and communities, conservation lands, and other natural resources within the project area within minutes. OKNP now utilizes annual subscription licenses with reduced fees for our clients who submit multiple data requests per year. Various map resources have been made available for anyone to view on KY-BAT, whether they are interested in land use or conservation planning or interested in information about state resources. KNP is developing additional resources to make available to the public on KY-BAT.

OKNP is a leader in the biological and environmental data field. OKNP biologists are recognized for their field experience and commitment to complete, accurate data. Data analysts respond to numerous large-scale and site-specific information requests which guide land-use planning, development, conservation efforts, and research. KY-BAT is the most accurate database of rare species, natural habitats, and conservation lands available in Kentucky and is updated regularly. It is the result of 40 years of research and on-the-ground inventories by KNP biologists, plus a compilation of herbarium records, museum records, and data from other agency and organizations. OKNP is committed to providing timely, creative, high-quality solutions to a wide variety of environmental and developmental planning needs. Data systems are linked with powerful mapping tools - now accessible on line 24/7 through the KY-BAT.

Office of Kentucky Nature Preserves Staff

The Office of Kentucky Nature Preserves is committed to the conservation of the natural areas and species that help make Kentucky special, thanks to our exceptional staff.

Generating high quality and reliable biological data and managing Kentucky's most unique natural areas requires thorough knowledge of both species and habitat requirements.

In addition, our biologists and natural areas managers have to be well-networked with other experts to compile and screen outside data sources and determine relevance, and to evaluate the best management practices for a variety of habitat improvement projects.



Director's Office



Sunni Carr
Executive Director (9/1/21)



Zeb Weese
Executive Director



Judy Cunningham
KNP Budget Specialist



Stephanie Ellis
KHLCP Purchasing Specialist

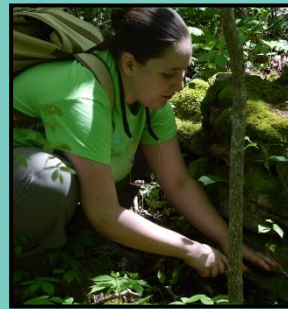
Biological Assessment Branch



Martina Hines
Branch Manager



Mike Compton
Aquatic Zoologist



Shelby Fulton
Terrestrial Zoologist



Lexi Schoenlaub
Data Specialist



Courtney Hayes
Environmental Scientist



Kayla Howard
Aquatic Technician



Nour Salam
Data Specialist



Natalia Maass
Database Technician

Natural Areas and Recovery Branch



Josh Lillpop
Branch Manager



Kyle Napier
Pine Mountain Manager



Maddy Heredia
KHLCF Land Manager/
Outreach Specialist



Jess Slade
Bluegrass Manager



Doug Wilder
Trails Manager



Heather Drake
Green River Manager



Ryan Fortenberry
Wild Rivers Manager



Lance Hostetler
Natural Areas Technician



Quinn Towery
Natural Areas Technician



Zach Lemmon
Natural Areas Technician

Rare Plant Conservation Section



Tara Littlefield
Section Supervisor



Devin Rodgers
Botanist



Kendall McDonald
Botanist



Heidi Braunreiter
Botanist



Tony Romano
Botanist



Rachel Cook
Botany Technician



Vanessa Voelker
Botanist



Score one for the outdoors



Coaching Legend & Outdoorsman
DENNY CRUM

NCAA & NBA Star
KYLE MACY

"Nature's Finest" license plates help buy and protect wilderness areas across our state. Rivers, woods, wetlands, parks - the places people treasure and wildlife call home. That's a win for us all. Ask for yours and drive home your support for our great outdoors.

Explore more at
EEC.KY.GOV

Photos and design by Chris England
and Thomas Barnes 2017

Next time you renew!

Kentucky Heritage Land Conservation Fund

